

## WHAT IS CLAIMED IS:

## 1. An imaging apparatus comprising:

imaging means;

encoding means for encoding a moving picture

5 signal, which has been output by said imaging means,  
using intraframe encoding and interframe encoding, and  
generating an encoded image signal comprising a  
plurality of picture groups each comprising  $n$  (where  $n$   
represents an integer equal to or greater than 2)

10 frames of an image signal including intraframe-encoded  
pictures obtained by the intraframe encoding and  
interframe-encoded pictures obtained by the interframe  
encoding;

recording means for recording the encoded image

15 signal, which has been generated by said encoding  
means, on a recording medium; and

control means for controlling said recording

means in accordance with a command to start recording  
of the moving picture signal so as to start recording  
20 from the leading end of a picture group that contains  
a frame, which corresponds to the record-start command,  
in the moving picture signal that has been output from  
said imaging means.

## 2. The apparatus according to claim 1, wherein said

25 recording means has a memory for storing the  
equivalent of one picture group of the moving picture  
signal generated by said encoding means.

3. The apparatus according to claim 1, wherein said control means further controls said recording means so as to record identification information, which indicates the frame corresponding to the record-start command, in the picture group at the portion thereof where recording starts.

4. The apparatus according to claim 1, further comprising transmitting means for transmitting the encoded image signal, which has been generated by said encoding means, to an external device while the signal is in the encoded state.

5. An imaging apparatus comprising:

imaging means;

encoding means for encoding a moving picture signal, which has been output by said imaging means, using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each comprising  $n$  (where  $n$  represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded pictures obtained by the intraframe encoding and interframe-encoded pictures obtained by the interframe encoding;

recording means for recording the encoded image signal, which has been generated by said encoding means, on a recording medium;

transmitting means for transmitting the encoded

image signal, which has been generated by said encoding means, to an external device while the signal is in the encoded state; and

control means for controlling said recording means, in accordance with a command to start recording of the moving picture signal during transmission of the encoded image signal by said transmitting means, so as to start recording from the leading end of a picture group that contains a frame, which corresponds to the record-start command, in the moving picture signal that has been output from said imaging means.

6. The apparatus according to claim 5, wherein said control means controls said encoding means and said recording means in such a manner that even if the frame corresponding to the record-start command is an interframe-encoded picture, recording by said recording means will be started without this frame being encoded as an intraframe-encoded picture.

7. An imaging apparatus comprising:

imaging means;

encoding means for encoding a moving picture signal, which has been output by said imaging means, using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each comprising  $n$  (where  $n$  represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded

pictures obtained by the intraframe encoding and interframe-encoded pictures obtained by the interframe encoding;

5 recording means for recording the encoded image signal, which has been generated by said encoding means, on a recording medium; and

control means for controlling said recording means in accordance with a command to start recording of the moving picture signal so as to start recording from a picture group that follows a picture group that contains a frame, which corresponds to the record-start command, in the moving picture signal that has been output from said imaging means.

8. An imaging apparatus comprising:

15 imaging means;

encoding means for encoding a moving picture signal, which has been output by said imaging means, using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each comprising  $n$  (where  $n$  represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded pictures obtained by the intraframe encoding and interframe-encoded pictures obtained by the interframe encoding;

25 recording means for recording the encoded image signal, which has been generated by said encoding

means, on a recording medium;

transmitting means for transmitting the encoded image signal, which has been generated by said encoding means, to an external device while the signal  
5 is in the encoded state; and

control means for controlling said recording means, in accordance with a command to start recording of the moving picture signal during transmission of the encoded image signal by said transmitting means,  
10 so as to start recording from a picture group that follows a picture group that contains a frame, which corresponds to the record-start command, in the moving picture signal that has been output from said imaging means.

15 9. The apparatus according to claim 1, wherein the leading frame of each picture group is the intraframe-encoded picture.

10. A recording apparatus comprising:

input means for inputting a moving picture  
20 signal;

encoding means for encoding the moving picture signal, which has been input by said input means, using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a  
25 plurality of picture groups each comprising  $n$  (where  $n$  represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded

pictures obtained by the intraframe encoding and interframe-encoded pictures obtained by the interframe encoding;

recording means for recording the encoded image  
5 signal, which has been generated by said encoding means, on a recording medium; and

control means for controlling said recording means in accordance with a command to start recording of the moving picture signal so as to start recording  
10 from the leading end of a picture group that contains a frame, which corresponds to the record-start command, in the moving picture signal that has been output from said input means.

11. A recording apparatus comprising:

15 input means for inputting a moving picture signal;

encoding means for encoding the moving picture signal, which has been input by said input means, using intraframe encoding and interframe encoding, and  
20 generating an encoded image signal comprising a plurality of picture groups each comprising  $n$  (where  $n$  represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded pictures obtained by the intraframe encoding and  
25 interframe-encoded pictures obtained by the interframe encoding;

recording means for recording the encoded image

signal, which has been generated by said encoding means, on a recording medium;

transmitting means for transmitting the encoded image signal, which has been generated by said  
5 encoding means, to an external device while the signal is in the encoded state; and

control means for controlling said recording means, in accordance with a command to start recording of the moving picture signal during transmission of  
10 the encoded image signal by said transmitting means, so as to start recording from the leading end of a picture group that contains a frame, which corresponds to the record-start command, in the moving picture signal that has been output from said imaging means.

15 12. A recording method comprising:

an input step of inputting a moving picture signal;

an encoding step of encoding the input moving picture signal using intraframe encoding and  
20 interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each comprising  $n$  (where  $n$  represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded pictures obtained by the intraframe  
25 encoding and interframe-encoded pictures obtained by the interframe encoding;

a recording step of recording the encoded image

signal on a recording medium; and

a control step of controlling said recording step in accordance with a command to start recording of the moving picture signal so as to start recording from  
5 the leading end of a picture group that contains a frame, which corresponds to the record-start command, in the input moving picture signal.

13. A recording method comprising:

an input step of inputting a moving picture  
10 signal;

an encoding step of encoding the input moving picture signal using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each  
15 comprising n (where n represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded pictures obtained by the intraframe encoding and interframe-encoded pictures obtained by the interframe encoding;

20 a recording step of recording the encoded image signal on a recording medium;

a transmitting step of transmitting the encoded image signal to an external device while the signal is in the encoded state; and

25 a control step of controlling said recording step, in accordance with a command to start recording of the moving picture signal during transmission of the



encoded image signal by said transmitting step, so as  
to start recording from the leading end of a picture  
group that contains a frame, which corresponds to the  
record-start command, in the input moving picture  
5 signal.

14. A recording method comprising:

an input step of inputting a moving picture  
signal;

an encoding step of encoding the input moving  
10 picture signal using intraframe encoding and  
interframe encoding, and generating an encoded image  
signal comprising a plurality of picture groups each  
comprising n (where n represents an integer equal to  
or greater than 2) frames of an image signal including  
15 intraframe-encoded pictures obtained by the intraframe  
encoding and interframe-encoded pictures obtained by  
the interframe encoding;

a recording step of recording the encoded image  
signal on a recording medium; and

20 a control step of controlling said recording step,  
in accordance with a command to start recording of the  
moving picture signal, so as to start recording from a  
picture group that follows a picture group that  
contains a frame, which corresponds to the record-  
25 start command, in the input moving picture signal.

15. A recording method comprising:

an input step of inputting a moving picture

signal;

an encoding step of encoding the input moving picture signal using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each comprising  $n$  (where  $n$  represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded pictures obtained by the intraframe encoding and interframe-encoded pictures obtained by

10 the interframe encoding;

a recording step of recording the encoded image signal on a recording medium;

a transmitting step of transmitting the encoded image signal to an external device while the signal is  
15 in the encoded state; and

a control step of controlling said recording step, in accordance with a command to start recording of the moving picture signal during transmission of the encoded image signal by said transmitting step, so as  
20 to start recording from a picture group that follows a picture group that contains a frame, which corresponds to the record-start command, in the input moving picture signal.

16. A computer-readable medium storing program code  
25 for causing a computer to execute the following steps:

an input step of inputting a moving picture signal;

an encoding step of encoding the input moving picture signal using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each comprising n (where n represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded pictures obtained by the intraframe encoding and interframe-encoded pictures obtained by the interframe encoding;

10 a recording step of recording the encoded image signal on a recording medium; and

a control step of controlling said recording step in accordance with a command to start recording of the moving picture signal so as to start recording from the leading end of a picture group that contains a frame, which corresponds to the record-start command, in the input moving picture signal.

17. A computer-readable medium storing program code for causing a computer to execute the following steps:

20 an input step of inputting a moving picture signal;

an encoding step of encoding the input moving picture signal using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each comprising n (where n represents an integer equal to or greater than 2) frames of an image signal including

intraframe-encoded pictures obtained by the intraframe encoding and interframe-encoded pictures obtained by the interframe encoding;

5 a recording step of recording the encoded image signal on a recording medium;

a transmitting step of transmitting the encoded image signal to an external device while the signal is in the encoded state; and

10 a control step of controlling said recording step, in accordance with a command to start recording of the moving picture signal during transmission of the encoded image signal by said transmitting step, so as to start recording from the leading end of a picture group that contains a frame, which corresponds to the  
15 record-start command, in the input moving picture signal.

18. A computer-readable medium storing program code for causing a computer to execute the following steps:

20 an input step of inputting a moving picture signal;

an encoding step of encoding the input moving picture signal using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each  
25 comprising  $n$  (where  $n$  represents an integer equal to or greater than 2) frames of an image signal including intraframe-encoded pictures obtained by the intraframe

encoding and interframe-encoded pictures obtained by the interframe encoding;

a recording step of recording the encoded image signal on a recording medium; and

5 a control step of controlling said recording step, in accordance with a command to start recording of the moving picture signal, so as to start recording from a picture group that follows a picture group that contains a frame, which corresponds to the record-  
10 start command, in the input moving picture signal.

19. A computer-readable medium storing program code for causing a computer to execute the following steps:

an input step of inputting a moving picture signal;

15 an encoding step of encoding the input moving picture signal using intraframe encoding and interframe encoding, and generating an encoded image signal comprising a plurality of picture groups each comprising  $n$  (where  $n$  represents an integer equal to  
20 or greater than 2) frames of an image signal including intraframe-encoded pictures obtained by the intraframe encoding and interframe-encoded pictures obtained by the interframe encoding;

a recording step of recording the encoded image  
25 signal on a recording medium;

a transmitting step of transmitting the encoded image signal to an external device while the signal is

in the encoded state; and

a control step of controlling said recording step,  
in accordance with a command to start recording of the  
moving picture signal during transmission of the  
5 encoded image signal by said transmitting step, so as  
to start recording from a picture group that follows a  
picture group that contains a frame, which corresponds  
to the record-start command, in the input moving  
picture signal.

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